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Selecting and structuring teaching content algorithm for physical and mathematical disciplines, aimed at students' project-technical competence formation

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Abstract

© 2015, Review of European Studies. All right reserved. The most important component of the professional competence of an engineer is the synthesis of project and technical competences—project-technical competence, suggesting a set of special knowledge, skills and proficiencies, personal qualities necessary for the effective specialists' performance of their professional duties, in particular, for the successful implementation of engineering projects requiring technical calculations running, capabilities to effectively operate in real life, to get oriented in production situations, to adapt to changing conditions, to work in different teams. In this connection, the problem of selecting and structuring teaching content of physical and mathematical disciplines, aimed at the formation of project-technical competence of technical university students, is becoming relevant. The paper presents an algorithm for selecting and structuring the physical and mathematical disciplines teaching content, aimed at the formation of students' project-technical competence, involving a sequence of analytical and preparatory, organizational-substantive, procedural-methodological, as well as correction-implemental stages. The article submissions are of practical value to Mathematics and Physics teachers for selecting and structuring the content of these disciplines.

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Keywords

Algorithm, Physical and mathematical disciplines, Project-technical competence, Selection and structuring, Teaching content, Technical university